

# Which form of globalisation for the Aluminium industry?

Dr Bruno G Ruettimann of Alcan outlines the fundamental changes that the Western Aluminium Industry has been experiencing during the past 15 years and will have to face in the future given the rising importance of new aluminium companies located in emerging economies as they become active on a global level. There is no common model of globalisation but rather three main groups governed by material globalisation, financial globalisation and the human factor.

**By Dr Bruno G Ruettimann**  
**Director of Strategy Planning Responsible for Business Development, Alcan Engineered Products.**

This report summarises the closing keynote speech given by Dr Ruettimann of Alcan Engineered Products during the 7<sup>th</sup> Aluminium 2008 World trade Fair and Conference, September 23-25 in Essen.

“What have globalisation of mining, globalisation of primary aluminium, globalisation of extrusions and globalisation of automotive in common? – Nothing, with the exception of the word ‘globalisation’ and the strive for individual profit maximisation” Bruno Ruettimann continued that the different intrinsic business logics each have also presents different globalisation patterns. Placing these different aluminium businesses on a business typology matrix, it becomes evident that they each belong to different business typologies (Fig 1).

According to Dr Ruettimann there are four basic business types: commodities, specialties, standards, and convenience, which also presents different globalisation types due to the difference in the market structure (oligopolistic or polypolistic) and the product characteristics (differentiated

and non-differentiated).

Dr Ruettimann argues that today’s scholastic economics textbook are no longer suitable to explain the ongoing differentiated phenomenon of globalisation as they model foreign trade based on Ricardian comparative cost advantages with Pareto optimality or Heckscher-Ohlin factors proportion concepts. New research studies by Krugman focus on geographic differences. Ruettimann proposes his globalisation types matrix of three main groups and three sub groups (Fig 2). Here, types 1 group represents material globalisation (physical flows), type 2 the immaterial or financial globalisation by foreign direct investments (FDI), and type 3 the globalisation referring to the human factor. He subdivides the physical flow globalisation group 1 into three subtypes, as type 1a (globalisation of commodities), type 1b (globalisation of specialties), and type 1c (opportunistic or cost globalisation). This is necessary because the businesses will most probably evolve according to this distinction. Indeed, each type of globalisation is triggered by different

logics and governed by different underlying economic variables; eg primary aluminium follows a type 1a globalisation, whereas the extrusion business is governed by a type 2 globalisation and has to face a type 1c globalisation.

Ruettimann says that along the value added chain of the aluminium industry the specific CSF (critical success factors) of each business are different (Fig 3) and an integrated aluminium company has to deal with different business logics. For commodities the CSF is cost. The fact is that managing such a business is relatively easy and not very demanding for a manager. “Indeed, in the evening, before going to bed, you may earn money if the LME is above the operating cost of your smelter, but when you awake next morning you may loose money if the LME has fallen below (this)”, he jokes.

The situation is far different for the standard type of business such as rolling or extrusion. Indeed, in addition to cost also service becomes essential. He pinpoints clearly that the transaction object is really not the

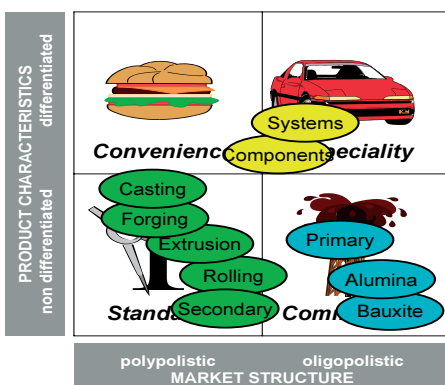


Fig 1: The aluminium businesses within the business types matrix

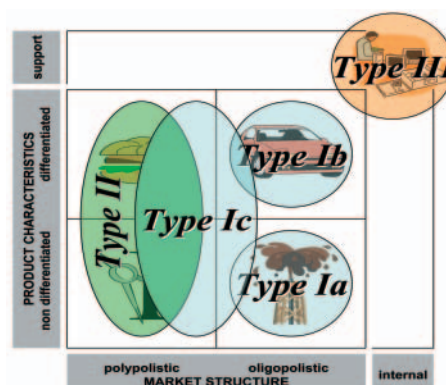


Fig 2: The globalisation types' matrix

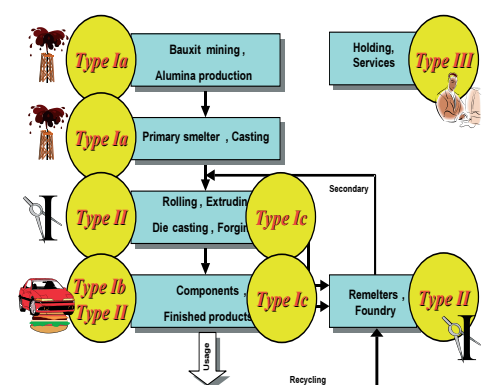
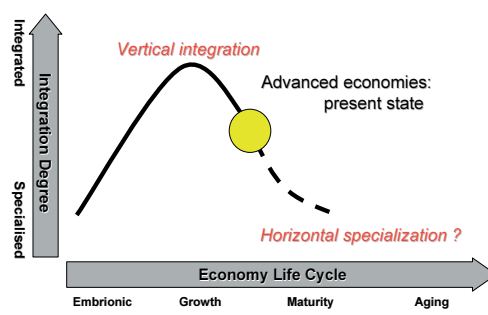
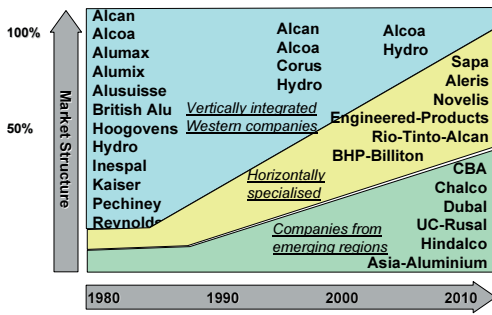


Fig 3: Aluminium value addition chain

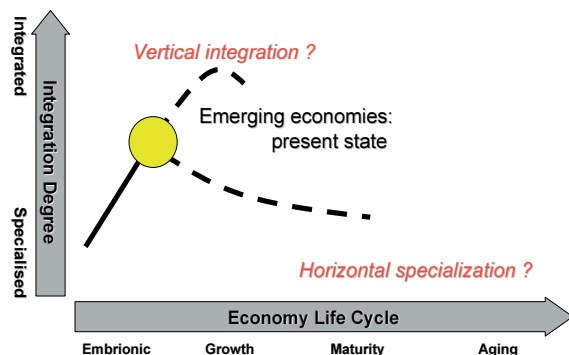


product itself, as it is often assumed erroneously, but the CSF is to provide a service. “What are customers usually asking?” – they are asking exactly three questions: Can you make this product? When can you supply it? How much does it cost?”. This changes completely how one should manage this type of business. Services to the customer such as short lead-time as well as on time delivery will become essential to survive the increasing competition. Also in semi-finished products plants, the concepts of ‘Lean’ and ‘Six Sigma’ may be applied to gain in competitiveness. For products in the specialties business, also providing solutions is a CSF along side the cost and the service. This shows that management teams of integrated companies need to understand this differentiated peculiarity and apply a contingent strategy approach to each business at each stage of the value added chain.

Having explained the rationale of the different aluminium businesses along the value added chain, Dr Ruettimann returned to the huge changes in the market structure for aluminium during the past 15 years. Indeed, a new era of company gigantism has made its appearance. Until 1990 the market was dominated by the Western vertically integrated aluminium companies such as Alcan, Alcoa, Alusuisse, British Aluminium, Hydro, Pechiney and VAW. Then a concentration and disintegration process began, characterised by the M&A of the big vertically integrated aluminium companies from advanced economies. From the original 12-14 fully integrated Western aluminium companies, today only two remain, namely Alcoa and Hydro. At the same time, we are experiencing a proliferation of independent companies with horizontal specialisation, “engineered products companies”, with names like Sapa, Aleris, and Novelis, as well as several mining groups (Fig 4). The vertically integrated companies are

transforming into horizontal specialisation; this shift is also due to the fact that the aluminium markets in advanced economies are approaching maturity in their life cycle. In a globalising world, a horizontal specialisation of the industry system seems to be more efficient from an economic point of view. This is induced by the fact that an extended scope requires a focussing of the business and an exploitation of intrinsic synergies. The horizontal specialisation of companies in advanced economies is accompanied by the increasing importance of new aluminium companies from emerging economies eg CBA, Chinalco, Dubal, UC Rusal, Hindalco, Asia Aluminium. “Globalisation has been changing the aluminium industry and marks the beginning of a new era”, he stresses.

Returning to the aluminium industry’s evolution, Dr Ruettimann believes that aluminium companies of advanced economies are on the path of disintegration, increasingly approaching a horizontal specialisation (Fig 5). The new aluminium companies of emerging economies are only just on the route to integration (Fig 6). Now, the question is: will they continue to follow the path of vertical integration or will they rather follow directly a horizontal specialisation? Ruettimann revealed his opinion: “it will depend on two dimensions; on the one hand how big is



**Above:**  
Fig 6 Evolution of aluminium companies from emerging economies

**Above Left:**  
Fig 4 Huge changes of aluminium market structure

**Above Right:**  
Fig 5 Evolution of aluminium companies from advanced economies

**REVIEW**

Dr Bruno G Ruettimann, globalisation expert and well known speaker at aluminium congresses, is author of the book ‘Modelling Economic Globalization – A Post-Neoclassic View on Foreign Trade and Competition’. In his book, he explains Why globalisation is happening and How globalisation will evolve.

The explanation of this integrated formal thesis of economic globalisation is accompanied by graphs and diagrams as well as by mathematical models. The book addresses a rather knowledgeable readership, but the main concepts are also understandable if the mathematics are skipped and allows us to share in these thought-provoking conclusions.

Available from: MV-Wissenschaft, ISBN 978-3-86582-447-9, Paperback, 201 pages, €29.50

the home market of the aluminium company in the emerging region; and on the other hand the strategic orientation of the company. If the mission is to develop the aluminium home market it will more likely develop vertically by integration, if the mission is to conquer the global market it will rather develop horizontally according to specialisation. Either way, we will most probably see both business models”.

Ruettimann concluded his presentation by discussing the different possible business models facing the globalisation challenge. “Conceiving a successful business model means to anticipate the changing logic of business, to identify the right CSF and to be aware of the pertinent globalisation type”. Finally, management has to decide between minimising risk tactics by portfolio management (more likely vertical integration) or maximising synergy orientation by focussing on strategy (more likely the horizontal specialisation approach). He concluded; “... there are only two ways to be successful: you have to identify the rules of the game and be better than the competitors, or – apply the first move advantage, you have to set new innovative rules to dictate the market”.

The closing keynote speech of Dr Ruettimann has been video recorded by the Alu-TV team of Alu-M with the permission of DGM (the conference organiser of the Aluminium Essen trade fair). It can be viewed at [www.alu-scout.com](http://www.alu-scout.com)